

ABSTRACT OF THE DISCLOSURE

A method of adjusting image descriptors when using steerable pyramid to extract features for content-based search is disclosed in this invention. Using steerable pyramid, the original image is filtered to produce Gaussian images and Laplacian images. The image descriptors are formed by filtering the Laplacian images. The filtering of the Laplacian images provides orientation data and energy data. From the orientation data, a first set of global information and local information is generated. From the energy data, a second set of global information and local information is generated. The descriptors are extracted from the respective sets of global information and local information associated with the orientation data and the energy data. The descriptors associated with the orientation data and the descriptors associated with the energy data are combined to form an image descriptor. The Laplacian image may be adjusted prior to the application of the filter. The adjustment is necessary since the value of the Laplacian image may not always be positive. When the adjustment is made to the Laplacian image, a spatial shift occurs to the corresponding energy data.

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